

Patent claims

1. Drinking straw attachment device for attaching drinking straws to beverage containers, wherein the drinking straws (4) are fed in the form of a drinking straw band (6, 26) which has been provided on a first side with a glue layer (8) and wherein the drinking straw attachment device comprises the following:
 - a conveyor device (10) for transporting the beverage containers (2) along a conveyor belt;
 - a feeder device (12) for feeding the drinking straw band (6, 26) to the conveyor belt, wherein the drinking straw band engages a second side on the feeder device (12) which has not been provided with a glue layer;
 - a cutting device (14) in the area of the feeder device (12) for severing the drinking straw band (6, 26) between two drinking straws (4) each; and
 - at least one pressing device (16a, 16b) for pressing a drinking straw (4) to a foil bag (2b) in such a manner that the drinking straw sticks with the glue layer (8) to the beverage container;
 - and where the feeder device (12) at least at any point where the cutting device (14) severs two drinking straws (4) from each other has a recess which in its height position is matched to the glue layer (8) and whose height extension (h1) corresponds at least to the width (h2) of the glue layer.
2. A drinking straw attachment device according to claim 1, **characterized in that** the feeder device (12) is a rotor.
3. A drinking straw attachment device according to claim 2, **characterized in that** the recesses are formed by a first peripheral groove (58) provided at the height of the glue layer (8) on the circumference of the feeder rotor (12).
4. A drinking straw attachment device according to one of claims 2 or 3, **characterized in that** the cutting device comprises a knife (14) which can be moved radially to the axis of the feeder rotor (12).

5. A drinking straw attachment device according to one of claims 1 through 4, **characterized in that** the feeder device (12) comprises vacuum devices (54) holding the drinking straws (4) by vacuum pressure to the feeder device.
6. A drinking straw attachment device according to one of claims 1 through 5, **characterized in that** two pressing devices (16a, 16b) are provided which engage in the upper and lower area of the drinking straw (4) to be pressed-on.
7. A drinking straw attachment device as claimed in one of claims 2 and 6, **characterized in that** the feeder rotor (12) comprises an extension in the axial direction corresponding at least to the height of a drinking straw (4) and where at the height of the pressing devices (16a, 16b) a second and a third peripheral groove (56a, 56b) are provided.
8. A drinking straw attachment device as claimed in one of claims 3 and 7, **characterized in that** a third pressing device is provided at the height of the first peripheral groove (58).
9. A drinking straw attachment device as claimed in one of the claims 1 through 8, **characterized in that** the pressing devices (16a, 16b) are fingers which can be pivoted around an axis (19) and which press against each of the drinking straws (4) with the end remote from the axis (18) on the corresponding beverage containers (2b).
10. A drinking straw attachment device as claimed in one of the claims 1 through 9, **characterized in that** the drinking straws (4) are heat-sealed into a protective covering (26) forming the drinking straw band and that the drinking straws (4) are separated from each other by a seal seam (28).
11. A device as claimed in one of the claims 1 through 10 **characterized in that** the glue layer comprises a transfer glue band (8) which has been applied in advance to the drinking straw band (6, 26).

12. A drinking straw attachment device as claimed in one of the claims 1 through 11 **characterized in that** two drinking straw attachment stations are each provided with a feeder device (12), a cutting device (14) and a corresponding number of pressing devices (16a, 16b) which alternately provide the beverage containers (2a, 2b) with drinking straws (4).
13. Method for attaching drinking straws to beverage containers, wherein the drinking straws are fed in the form of a drinking straw band (6, 26) provided on one side with a glue layer (8) by a feeder device (12) to the beverage containers (2), wherein the drinking straw band (6, 26) is severed with a cutting device (14) in the area of the feeder device (12) between two drinking straws and wherein the cutting device (14) pierces through the glue layer (8) and the drinking straw into a recess (58) provided on the feeder device (12) corresponding in its height position to the glue layer (8) and the height extension (h1) of which at least corresponds to the width (h2) of the glue band and subsequent to which the individual drinking straws are glued onto the respective beverage containers.